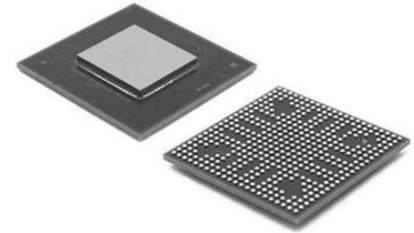


8-Channel, 4.8 kHz, Ultralow Noise, 24-Bit Sigma-Delta ADC with PGA; No of Pins: 32;
Temperature Range: Ind

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-32
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD7194BCPZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7194 is a low noise, complete analog front end for high precision measurement applications. It contains a low noise, 24-bit sigma-delta (Σ - Δ) analog-to-digital converter (ADC). The on-chip low noise gain stage means that signals of small amplitude can interface directly to the ADC.

The device can be configured to have eight differential inputs or sixteen pseudo differential inputs. The on-chip 4.92 MHz clock can be used as the clock source to the ADC or, alternatively, an external clock or crystal can be used. The output data rate from the part can be varied from 4.7 Hz to 4.8 kHz.

The device has a very flexible digital filter, including a fast settling option. Variables such as output data rate and settling time are dependent on the option selected. For applications that require all conversions to be settled, the AD7194 includes zero latency.

The part operates with a power supply from 3 V to 5.25 V. It consumes a current of 4.65 mA, and it is housed in a 32-lead LFCSP package.

Features

Fast settling filter option

8 differential/16 pseudo differential input channels

RMS noise: 11 nV at 4.7 Hz>

15.5 noise-free bits at 2.4 kHz>

Up to 22 noise-free bits>

Offset drift: ± 5 nV/ $^{\circ}$ C

Gain drift: ± 1 ppm/ $^{\circ}$ C

Programmable gain (1 to 128)

Output data rate: 4.7 Hz to 4.8 kHz

Internal or external clock

Simultaneous 50 Hz/60 Hz rejection

4 general-purpose digital outputs

Power supply

AVDD: 3 V to 5.25 V

DVDD: 2.7 V to 5.25 V

Current: 4.65 mA

Temperature range: -40° C to $+105^{\circ}$ C

Package: 32-lead LFCSP

Interface

3-wire serial

SPI, QSPI™, MICROWIRE™, and DSP compatible

Schmitt trigger on SCLK

Application

PLC/DCS analog input modules

Data acquisition

Strain gage transducers

Pressure measurement

Temperature measurement

Flow measurement

Weigh scales

Chromatography

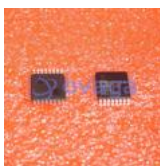
Medical and scientific instrumentation

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



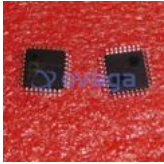
[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64